

ABSTRACT

The present invention relates to an air humidifier for adding moisture to a working medium of a gas turbine for humidification, and gas turbine electric power generation equipment for driving the gas turbine by the working medium of high moisture to generate electricity. An object of the present invention is to reduce pressure loss of burned exhaust gas of the gas turbine to improve output or efficiency of electric power generation. There comprises a humidifier (3), a combustor (5), a turbine (6), a generator (7), and a water recovery unit (10), further comprises an exhaust gas reheater (11) for heating burned exhaust gas discharged from the water recovery unit by surplus water discharged from the humidifier.